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SENSITIVE SIPDIS

STATE FOR OES/STC, OES/PCI, OES/SAT, EUR/ACE, EUR/RUS, EUR/PGI, EUR/PRA, ISN/CTR
OSTP FOR HOLDREN, ROLF
STATE PLEASE PASS TO NASA AND USAID
HHS PLEASE PASS TO NIH and CDC
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TPHY, EAID, OSCI, KGHG, ENRG, KSCA, SCUL, ECIN, EINT,
TSPA, PHUM, SOCI, ETTC, RS
SUBJECT: U.S. SCIENCE ADVISOR AND RUSSIAN SCIENCE MINISTER AGREE
HOW TO STRENGTHEN BILATERAL SCIENCE AND TECHNOLOGY COOPERATION

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Sensitive but Unclassified. Not for Internet distribution.

(SBU) Summary: Dr. John Holdren, Assistant to the President for Science and Technology and Director of the Office of Science and Technology Policy (OSTP) in the Executive Office of the President of the United States, and Joan Rolf, Assistant Director for International Relations in OSTP, met Russian government officials and scientists, and gave a press interview in Moscow October 28-30, before travelling to Kazan for the Carnegie meeting of science ministers and advisors. In each meeting, Holdren explained that President Obama regards building the science and technology (S&T) relationship with Russia as an important pillar in strengthening overall bilateral relations and is interested in S&T more generally as a key to creating jobs, stimulating innovation, developing clean energy technology and addressing climate change. Holdren and Minister of Education and Science Fursenko agreed that the new S&T Working Group under the Bilateral Presidential Commission would focus on nanotechnology, information technology, and carbon cycle monitoring, but also reduce obstacles to cooperation such as visas, customs duties on scientific equipment for joint projects, taxation of research grants, and marine scientific research authorizations. They concurred that communication and coordination with the other working groups are critical because many issues span several of the Commission's working groups. End summary.

Russia Now More Interested in S and T Cooperation with U.S.

12. (SBU) International Science and Technology Center's (ISTC)

Executive Director Michael Einik, ISTC Commercialization Program Manager Tim Murray, Civilian Research and Development Foundation's (CRDF) Acting Moscow Office Director Vladimir Kurakin, and CRDF Senior Advisor Irina Dezhina provided Holdren with the implementers' view of S&T cooperation. CRDF and ISTC agreed that in the past few years, Russian institutes' primary interest in joint projects with CRDF and ISTC has been to forge contacts with U.S. scientists, not to obtain grant money. However, they cited several reasons why the Russian government is now more interested in cooperating with the United States. First, it is not as flush with cash as it was before the economic crisis; it has made huge funding cuts in non-priority areas, and even had to trim back some priority areas. Second, President Medvedev's five S&T priorities (energy efficiency, nuclear technology, telecommunications and space technology, medical technology, including medical equipment and pharmaceutical development, and information technology (IT), including strategic computer technology and software) track very closely with the U.S. priorities announced in President Obama's speech at the National Institutes of Health. Third, the Russian government is restructuring higher education along the U.S. model, creating 14 national research universities that are being directed to increase research, international cooperation, and cooperation with business. Finally, the Russian government is intensely interested in commercializing technology more successfully.

13. (SBU) However, stronger Russian interest in cooperating with the United States does not necessarily translate into stronger Russian government support for ISTC or CRDF. They noted that Minister Fursenko launched a program to strengthen links with Russia's diaspora in which the Russian scientists working abroad can apply for two-year research grants that require two months of research in Russia. ISTC has a number of strengths, including its tax and customs exemptions, growing numbers of grant applications, and an enormous Rolodex of contacts. But the Russian government is

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reported to be considering a decision to withdraw from the multilateral agreement that created ISTC. Although CRDF lost its automatic tax exemption at the end of 2008, its partners can still apply for tax exemptions. In addition, CRDF said that the Russian Duma is considering adding new organizations to the limited number that retained tax exemptions.

MFA: STWG 3 Areas of Focus; Need to Coordinate With Other WGs

- 14. (SBU) Ambassador-at-Large Eduard Malayan on October 29 clarified that while Minister of Education and Science (MES) Fursenko would determine what the S&T Working Group (STWG) would do, Malayan was interested in how the STWG would fulfill the Presidents' instructions and how it would interact with the other Bilateral Presidential Commission (BPC) working groups and existing bilateral S&T groups. Holdren explained that President Obama regards building the S&T relationship with Russia as an important pillar in strengthening overall bilateral relations. Holdren agreed that communication and coordination will be critical because so many of the STWG issues span other working groups. For example, information technology, nanotechnology, and biotechnology, are all "green technologies," but the STWG will advance the information technology and nanotechnology, while the Agriculture WG will handle biotechnology. President Obama views S&T as key to address climate change and excessive energy import dependence through smart grids, better mass transportation, energy efficiency, nuclear energy, renewable energy, and carbon capture, which other working groups are addressing. IT and biomedical technology are key to President Obama's effort to improve health care by bringing about better outcomes at less cost, so the STWG will need to coordinate with the Health Working Group. Earth observation from space can help solve climate change challenges, an overlap with the Space WG.
- 15. (SBU) Holdren described the three initial priorities the U.S. proposed and MES accepted for the STWG -- nanotechnology, IT, and carbon cycle monitoring.
- -- Nanotechnology: The United States will host a joint nanotechnology experts group in Washington in February. Although

nanotechnology has important energy and other applications, the STWG must focus as well on environment, health, and safety aspects so that perceived or actual problems do not constrain its further development.

- -- IT: The United States and Russia can learn from each other how IT can provide better health outcomes at reduced cost, create smart grids for electricity transmission and distribution, improve S&T education as well as overall education, and increase public participation in government and access to government decisions.
- -- Carbon Cycle Monitoring: There is some capacity to monitor and verify whether countries are meeting their Copenhagen commitments, but the world needs better information about sources and sinks of greenhouse gases and particles (GHG). In particular, current measurements for black carbon soot and releases of methane and carbon dioxide from northern soils are not adequate. The United States and Russia can improve ground- and satellite-based sensors and networks and strengthen international data sharing. Nikolay Smirnov, Deputy Head of North America Department, agreed that it is very important to do more than monitor weather in the Arctic since transportation is already starting. He asked about the status of the agreement the Russian government proposed on Search and Rescue a

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year and a half ago, to which he said the United States never responded. (Note: Smirnov faxed this text to ESTH Moscow on November 6. As advised by the State Department, ESTH advised Smirnov on November 13 that we view the Search and Rescue Task Force in the Arctic Council that the United States plans to chair with Russia as superseding this text. End note.)

Holdren noted that the initial U.S. focus is on getting the STWG functioning without trying to merge it with existing entities, such as the Joint S&T Committee established by the bilateral S&T agreement. Holdren added that the STWG could spawn other subgroups with specialized expertise, as needed.

MFA: Real Progress Will Facilitate Resolving Obstacles; TSA

- 16. (SBU) Agreeing with Holdren that both sides needed to solve crosscutting obstacles to cooperation in order to be successful, Malayan commented that some of the obstacles have been on the bilateral agenda since Soviet times. Malayan affirmed that Holdren is absolutely correct to put these issues on the STWG agenda even though it will be hard to find solutions since so many agencies are involved. However, it should be possible to resolve them, Malayan stated, because both Presidents have stressed the importance of cooperation, including on S&T. President Medvedev shares President Obama's vision that S&T is an engine moving cooperation forward between our countries.
- -- Visas: The United States, Holdren volunteered, has contributed its share of problems to getting visas for scientists. Although most scientists now get visas within two weeks, Holdren would like to see even further improvements. The Russian 90-day visa limitation for scientists on working visits at Russian Academy of Sciences (RAS) institutes or to MES is problematic because it does not permit scientists to finish their work. Malayan agreed that both sides need to improve the situation because overall numbers of student exchanges are declining due to the economic crisis.
- -- Taxation: Holdren said that it would be beneficial to address the tax status of organizations that provide grants to scientists. Malayan responded that an amendment to the law has been introduced to Parliament that will "meet our concerns."
- -- Customs Duties: Holdren stated that the U.S. position is that research equipment for use in joint projects should not be subject to customs duties.
- -- Marine Scientific Research Authorizations: Recognizing that the Arctic is a sensitive zone militarily for Russia, Holdren expressed U.S. concern over Russian delays and failures in granting authorizations for U.S. conduct of marine scientific research in

Russia's Exclusive Economic Zone. He expressed hope that the Russian interagency process for coordinating clearances could be streamlined.

17. (SBU) Explaining that he has been in charge of bilateral S&T cooperation for years, Andrey Krutskikh, Deputy Director of Department of New Threats and Challenges, said there is no limit to the level bilateral cooperation can reach. If the United States and Russia are successful, problems such as taxation and visas are "easily solved." But if there are no real results and only exchanges of delegations, Prime Minister Putin and President Medvedev are very practical and will have no reason to solve

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problems. Krutskikh warned that serious cooperation in the three STWG areas will require an umbrella Technology Safeguards Agreement (TSA) because ratifying separate intellectual property and TSAs for each project takes too long. Rusnano Chairman Chubays ran into this problem when he went to the United States with millions of GOR dollars for investment purposes, but without a TSA. Recalling how the United States and Russia agreed on a text for an umbrella TSA, which the United States later blocked, Krutskih suggested adding a blanket TSA to the bilateral S&T Agreement, leaving details of individual arrangements for agencies, institutes, and private companies to handle in separate agreements. Malayan called Krutskikh's advice "wise." Holdren promised to look into the reasons for the hold-up. (Note: ESTH has been informed by NASA that the Russian government's proposed TSA included governmental activities. The United States has not applied TSAs to governmental activities with any country because government-to-government agreements already include adequate technology safeguards. End note.)

MES: STWG core of S&T cooperation; Ideas to reduce obstacles

¶8. (SBU) Meeting on October 29 first in a small group and then with a larger group, Holdren and Fursenko stated that both presidents want S&T cooperation to be an important part of the relationship. The STWG is an important opportunity to achieve practical results, not just signing pieces of paper. They confirmed the STWG would make nanotechnology, IT, and carbon cycle monitoring its initial focus, but coordinate and communicate with other working groups because of the many overlaps, and add other areas as necessary. Fursenko noted that this approach would allow the STWG to advance all of President Medvedev's five priorities either directly in the STWG or by assisting other working groups. With Fursenko likening the STWG to the smallest nesting doll in the S&T matrioshka set, they decided the STWG would be the core of bilateral S&T cooperation, leaving broader issues to the Joint Committee. Innovation Council on High Technologies (ICHT) should be asked how it wants to continue to function and it can provide input on the topic of nanotechnology, information technology, and carbon cycle monitoring to the STWG. They agreed to conduct the first STWG $\,$ meeting by video teleconference in late January and then meet in person in the United States in March, when Fursenko plans to travel to Stanford for the Innovation Forum. The STWG could take place the first day with the Joint Committee meeting on the second day. prepare for the first STWG meeting, each side will ask experts in the three areas to make proposals and suggest guidelines so that Fursenko and Holdren will have concrete achievements to report to the presidents at the first STWG meeting. There should be no more than ten permanent members of the STWG on each side. Although Fursenko and Holdren noted that they retain overall responsibility for STWG progress, they designated Rolf and MES International Department Head Vladislav Nichkov as STWG points of contact to keep things moving. Deputy Minister Aleksandr Khlunov will facilitate the STWG's work. Holdren proposed that the STWG include among its first accomplishments signing the Memorandum of Understanding on High Energy Nuclear Physics, under negotiation since 2003, and renegotiating a Seismology Agreement. Fursenko noted that he had signed the Seismology Extension and expected Russian Academy of Sciences signature later that day. (Note: MES delivered the signed document to the Embassy on October 30 for Holdren to carry back to the United States. End note.)

 $\underline{1}9$. (SBU) After Holdren described the four crosscutting obstacles to MOSCOW 00002932 005.2 OF 010

cooperation that he would like the STWG to reduce, Fursenko noted that MES could help with some, but not all.

- -- Visas: Because of the presidential interest in improving S&T cooperation, MES can propose to the MFA that Russia and the United States conclude a bilateral agreement for science and education exchanges similar to those Russia has with other countries. Fursenko warned this would not be fast, but it is better than waiting for the overall regime to be fixed. Nichkov agreed that such a bilateral agreement is possible.
- -- Taxation: Fursenko explained that the Ministry of Finance's guiding principle is no tax preferences for any entity ever. When Fursenko raises this issue with Minister Kudrin, his friend for over 20 years, Kudrin says he can give MES more money, but not tax exemptions. However, Fursenko has an idea and will attempt to create an opportunity. Although he will do his best, he cannot promise anything. Holdren offered to speak with Treasury Secretary Geithner to see if the position of not providing tax exemptions for joint scientific research might be able to be relaxed. Fursenko added that Russia is particularly interested in U.S. cooperation with Russia's new national science research centers, such as Kurchatov Institute, which will advance presidential priorities such as nanotechnology and energy efficiency. Fursenko strongly believes Russia needs to make these facilities more open to international cooperation and hopes U.S. institutions will want to create direct links with them, particularly since IT makes it possible to meet virtually. (Comment: Although Fursenko did not directly link institutional cooperation to tax exemptions, it seems likely his idea relates to institutional cooperation since he mentioned it in the context of tax exemptions. End comment.)
- -- Marine Scientific Research Authorizations: Fursenko said Russia has granted some authorizations, but has had problems with others in coordinating with the eight ministries that need to clear on them. He said he would return to this problem, seeking to reduce the number of agencies that have to clear.

Wrapping up the meeting, Deputy Chief of Mission Eric Rubin congratulated both sides on an excellent start to the STWG.

Academicians Recommend STWG Focus on Young Scientists

 $\P 10$. (SBU) At an October 29 lunch Rubin hosted at his townhouse, Academician Nikolay Laverov, RAS Vice President, was enthusiastic about the STWG, calling it an important window of opportunity. Laverov, who noted that he will soon celebrate his eightieth birthday, stressed that although his generation is key to the STWG's success, the United States and Russia need to use the STWG to create links between the next generation of U.S. and Russian scientists. Academician Aleksandr Dynkin, First Deputy Director of the Institute of World Economy and International Relations, reminded lunch participants of the history of the peaks and valleys of ${\tt U.S.-Russian}$ science cooperation, cautioning that both sides have often failed to take advantage of past windows that have arisen. He pointed to space and S&T innovation as areas ripe for U.S.-Russian cooperation. Academician Vadim Ivanov, RAS Vice President and Director of the Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, urged that the United States and Russia strengthen biomedical cooperation. Academician Gennadiy Andreyevich Mesyats, RAS Vice President and Director of Lebedev Physics Institute, expressed his institute's interest in expanding joint research in high energy physics with MIT

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and other universities to address the world's growing energy demands. Holdren wryly noted that the best way to stop a window from closing is to get as much of one's body as possible into it. Although the academicians agreed, Ivanov and Mesyats described numerous visa problems that prevented them and their colleagues from attending conferences in the United States. Holdren informed them

of the significant improvement in the visa process since July and of the Obama Administration's commitment to take a further look at U.S. visa procedures as a key part of facilitating ties between scientists. He voiced hope that the Russian side would also take steps to alleviate Russian visa problems that U.S. scientists encounter.

Roshydromet Interested in More Climate Monitoring with ${\tt U.S.}$

11. (SBU) On October 29, Alexander Bedritsky, head of Russia's hydro-meteorological service, Roshydromet, and second term president of the World Meteorological Organization, described the long history of U.S.-Russian cooperation on climate change. Noting NOAA's large network of ground-based observation facilities, Bedritsky said Roshydromet was working to establish a pair of greenhouse gas monitoring observatories in the Arctic circle, including the Tiksi observatory, where U.S. and Finnish scientists are collaborating with Russian colleagues. Bedritsky acknowledged that Russia is slightly behind the United States in satellite monitoring, but is working to add highly elliptical monitoring to provide a complete picture of the Arctic. Of particular interest is uninterrupted, dynamic monitoring of sea ice. Bedritsky provided a copy of Roshydromet-RAS 2008 assessment of climate change and its consequences in the Russian Federation, including effects on infrastructure, health and agriculture. (The 2005 edition is available online at http://www.meteorf.ru/en_default.aspx.) After noting that carbon monitoring is one of the three priority areas for the STWG, Holdren stressed that improved monitoring is needed to verify if countries are meeting emission reduction commitments. Bedritksy responded that Russia is very active in these areas and he looks forward to working with the United States to make improvements. Russia is experiencing real changes, particularly in the Far North. Roshydromet just estimated that the Russian Federation is losing 12 square kilometers of land mass a year -- not because of raising sea levels, but because warming soils are actually sinking along the Arctic coast. Tundra is also shrinking. (Note: On November 6, Prime Minister Putin very unexpectedly accepted Bedritskiy's previous offer to resign as Roshydromet head because Bedritsky had reached retirement age. End note.)

Kurchatov Institute - Cutting-edge Nanotechnology Research

112. (SBU) Kurchatov Institute Director Mikhail Kovalchuk and President Yevgeniy Velikhov treated Holdren, Rolf, and several EST staff to a personal tour on October 29 of the 100-hectare Russian Research Center Kurchatov Institute. Kurchatov, founded in 1943 and which developed the Soviet atomic bomb in 1949, now boasts six nuclear research reactors, 14 critical reactor assemblies, a synchrotron, and supercomputers. Since 2008, it has coordinated Russian research in nanobiotech, nanosystems and nanomaterials. Kovalchuk showed how Kurchatov is expanding its Center for Synchrotron Radiation and Nanotechnology for even more advanced research in physics, chemistry, biology, materials science and micro and nanotechnology. A Russian researcher recently returned from Cornell showed off Kurchatov's state-of-the art nano laboratories

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and work on genome sequencing and biochip analysis.

113. (SBU) After the tour, Velikhov proposed that Russia, the United States, and Japan mass produce 300-500 megawatt fast breeder reactors. Noting the high cost of current breeder technology compared to conventional reactor types, Holdren recommended further research and development on breeders in preference to deployment. Recalling his work since 1974 with Holdren on fusion energy, Velikhov declared that Russia has full funding available for the ITER Tokamak fusion reactor being built in France, but expressed concern that although the scientific equipment is ready, the Europeans do not have enough money to start constructing the building. After Holdren confirmed U.S. concerns about ITER management, Velikhov added that in Russia, unauthorized spending is a one-way ticket to jail.

114. (SBU) Kovalchuk declared that although the United States and

Russia are still competitors, we must improve cooperation on S&T so that each country can advance. Concurring that both presidents are interested in S&T, Kovalchuk pointed out that Kurchatov is at the forefront of each of the five areas President Medvedev will focus government's resources on: energy efficiency, nuclear, telecom and space technologies, medical technologies, and IT, with 2 billion $\frac{1}{2}$ rubles (approximately \$69 million) to be allocated to each priority area in the 2010 budget. Medvedev chose Kurchatov as the site for the September 30 joint meeting of the Presidential Commission for the Modernization and Technological Development of Russia's Economy and the Presidium of the Council for Science, Technology and Education at which Medvedev focused on only one issue -- the "alarming" need to improve Russia's energy efficiency, pass relevant legislation in the Duma, and develop energy-saving innovative technologies. Medvedev also signed in September a decree strengthening Kurchatov's status as a Russian national research center. Kovalchuk said Kurchatov is ready to partner with the United States on energy efficiency, declaring that together we can feed the world with (nuclear) energy, while avoiding proliferation. Kovalchuk's deputy directors described their international cooperative research efforts. Kovalchuk raised the problems his scientists face with getting U.S. visas which have greatly deterred them from considering travel to scientific conferences in United States. He stressed that Russian-EU science cooperation is far more attractive because Russian scientists can get five-year multiple-entry EU visas. Holdren responded that he had already discussed visa issues with both MES and MFA and would undertake to get visa issues raised to higher levels in the U.S. government.

Journalist Asks about U.S. S&T Funds, Russian Scientists in U.S.

115. (U) In an October 30 interview with Arthur Blinov, science journalist at daily Nezavisimaya Gazeta, Holdren described the plans of the S&T Working Group and noted that scientists in both countries are very enthusiastic about new opportunities for bilateral cooperation. Given the scope of challenges we are facing, he explained that we need to combine resources since all of the most prospective trends in S&T require joint efforts. Reflecting concern in Russia about declining funding for science, Blinov was particularly interested in U.S. science funding. Highlighting President Obama's interest in science and the link between science innovation and economic growth, Holdren confirmed that economic research shows that 50 to 85 percent of the economic growth over the past fifty years can be attributed to S&T research. When asked about Russian immigrants' contributions to U.S. scientific

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achievements, Holdren acknowledged their importance and added that the United States has always profited from immigration of talent, demonstrated by the fact that five of the eight recent U.S. Nobel Prize winners are immigrants. He declared that it is important to provide scientists with adequate working conditions, commenting that many Russian scientists left Russia at the end of the Cold War when conditions were poor. The situation in Russia has changed significantly, however. He has visited Kurchatov Institute roughly every five years since 1974 and is greatly impressed by its progress. Today's Kurchatov Institute is a world class research center, with talented staff and excellent equipment. The interview in Russian is at: http://www.ng.ru/ideas/2009-11-02/6_holdren.h tml.

Think tanker Argues That Iran Must Stop Enrichment

116. (SBU) During their October 30 meeting, Alexey Arbatov, Head of Center for International Security at the Institute of International Economy and International Relations, told Holdren that his party, Yabloko, sent a letter to President Medvedev on Iran's nuclear program that called on the Russian Government to base its relations with Iran on Iranian compliance with all five UN Security Council resolutions. Now that Iran has revealed its enrichment facility at Qom, Arbatov argued, it is clear that Iran has made the political decision to create nuclear weapons. So it must cease uranium enrichment. Yabloko sent a separate letter to President Medvedev in support of Medvedev's article, "Russia, Forward," which advocates rapid modernization. Arbatov said both the United States and Russia

need to sign a START treaty by the end of the year so that they are not in a political and military vacuum. He claimed that whatever the limits are by 2020, Russia will have only 100 missiles capable of delivering warheads. Arbatov advised that the United States make it clear that its missiles will not be used to carry conventional weapons. On missile defense, Arbatov opined that Russian specialists clearly understand that the deployment of missile defense systems in Poland and the Czech Republic was not a threat to Russia. This was used by Russian neoconservatives to foment anti-American feelings.

President's Advisor: Russia Determined to Reinvigorate S&T

- 117. (SBU) Arkadiy Dvorkovich, Advisor to President Medvedev, was pleased to learn that the first STWG meeting is planned to be held by teleconference in January, applauding the use of technology to enhance efficiency. When Holdren cautioned that it may be necessary to refer obstacles to cooperation such as visas, customs duties, taxes, and marine scientific research authorizations to Secretary Clinton and FM Lavrov, Dvorkovich remarked that the WG Chairs are empowered to work outside the strict competencies of their ministries to resolve problems. For instance, a WG could and should invite representatives from the Ministry of Foreign Affairs, Ministry of Finance, etc to propose solutions the WG could present to the presidents. Dvorkovich said improvements in Russian visas would take place within a few months, starting with priority areas where Russia needs human capital, such as English teachers.
- 118. (SBU) Dvorkovich called the three priority areas agreed on by the STWG (nanotechnology, IT, and carbon cycle monitoring) "excellent opportunities for collaboration." He highlighted the announcement of President Medvedev's Commission on Modernization and Technological Development of an additional 10 billion rubles (approximately USD 345 million) for the President's five priorities

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(energy efficiency, nuclear, telecom and space technologies, medical technologies, and IT). He added that:

- -- Russia wants to advance energy efficiency through an interdisciplinary approach that harnesses nanotechnology and the new Research and Education Centers;
- -- Russia's telecom and IT goals include expanding broadband access, fourth generation mobile phone technology, nationwide digital TV, e-government, and global positioning technology for ships, road traffic, and the development of digital maps. IT should be used to provide English instruction by native speakers, and lectures in math and science. After Holdren described gains from open government initiatives, Dvorkovich commented that Russia's private sector, not the Russian government, had developed a product similar to the searchable U.S. Federal Register. He noted that Russian regional governments had made significantly more progress than the central government and noted Kazan is Russia's most advanced city government in terms of e-government.
- $\mbox{--}$ In medical science, Russia plans to better employ nuclear medicine and super computers.
- 119. (SBU) Dvorkovich agreed that carbon cycle monitoring is important, emphasizing that it could provide a technical solution to a political problem - compliance and ensuring that other countries live up to their emissions commitments, especially large emitters, like China. He asked Holdren about reports that India and China had mutually agreed to hold back on making ambitious commitments. Holdren noted that China is making faster progress, but India has been moving in the right direction over the last year or two. Dvorkovich responded that Russia's position is clear - Russia is ready to commit if the United States and China do. He stressed that Russia has an ambitious energy efficiency program, which will go forward no matter what happens in Copenhagen. Emphasizing the importance of climate change to the U.S. government, Holdren said Russia and the United States have a joint responsibility to lead. Reducing emissions through innovation is the most cost effective way to create new jobs. Reiterating Medvedev's desire to speed up innovation, Dvorkovich said that Russia cannot succeed only with its own resources and called for large U.S. companies to come and establish R&D centers in Russia, along the lines of the Boeing R&D

center. He claimed that European companies were more engaged. When Holdren noted that some U.S. businesses see Russia's legal environment as an obstacle, Dvorkovich stated that successful examples of U.S. R&D investment, like Boeing, will help counter this perception. Dvorkovich stressed Medvedev's commitment to anti-corruption, citing the prosecution of "hundreds of cases."

120. (SBU) Comment: The June celebration of fifty years of cooperation between the Russian and U.S. academies of science highlighted both Presidents' obvious interest in tapping science and innovation to promote economic growth and their desire to work together to do so. Holdren's visit successfully continued the momentum from the July presidential summit and the October Secretary Clinton/Foreign Minister Lavrov meetings. It was striking that every single one of his interlocutors listed President Medvedev's five priority areas for innovation. But if they were all on message, that message clearly included warmly welcoming increased S&T cooperation with the United States, particularly big, ambitious, expensive projects. Holdren and Fursenko agreed to the five priority areas and arrangements for the STWG surprisingly quickly. Bedritskiy, unexpectedly dismissed on November 6, Dvorkovich, and scientists from Kurchatov and the Russian Academy of Sciences were also enthusiastic, although wary of visa problems. Only the Ministry of Foreign Affairs seemed hamstrung by shadows of past

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negotiations. One of the main challenges for the STWG will be to manage expectations and demonstrate that targeted policy exchanges and small projects can show real results. But key to those results is finding ways to remove obstacles to cooperation such as visas, customs duties, taxation, and marine scientific research authorizations. End Comment.

121. (U) This cable was cleared by Dr. Holdren and Ms Rolf.

BEYRLE